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FIG. 1

GPC (elution solvent:THF)

FIG. 2

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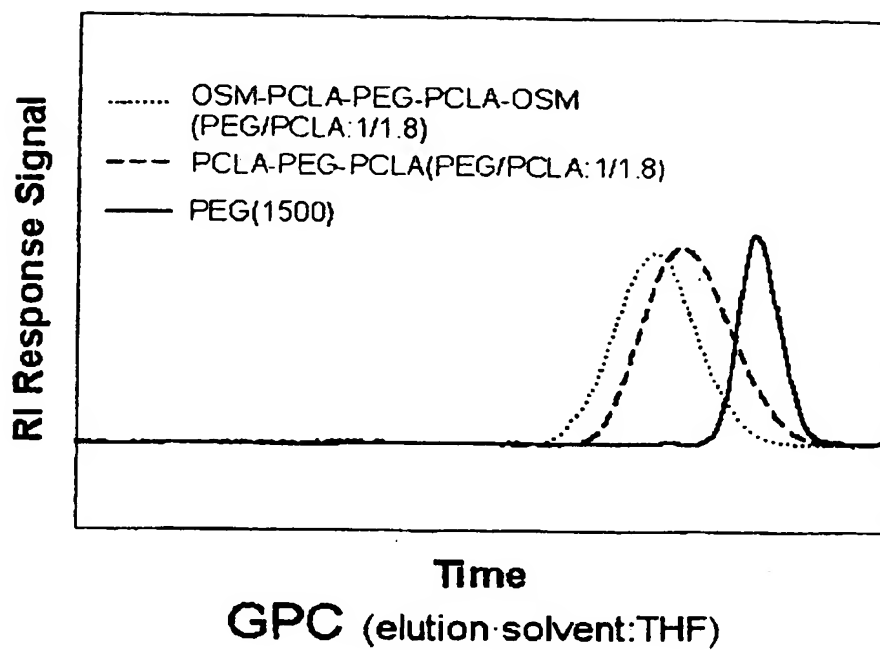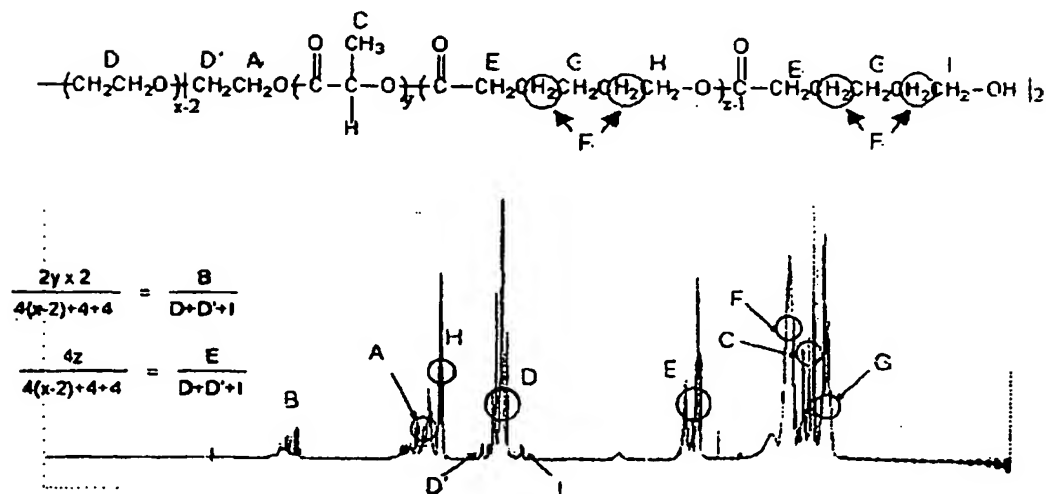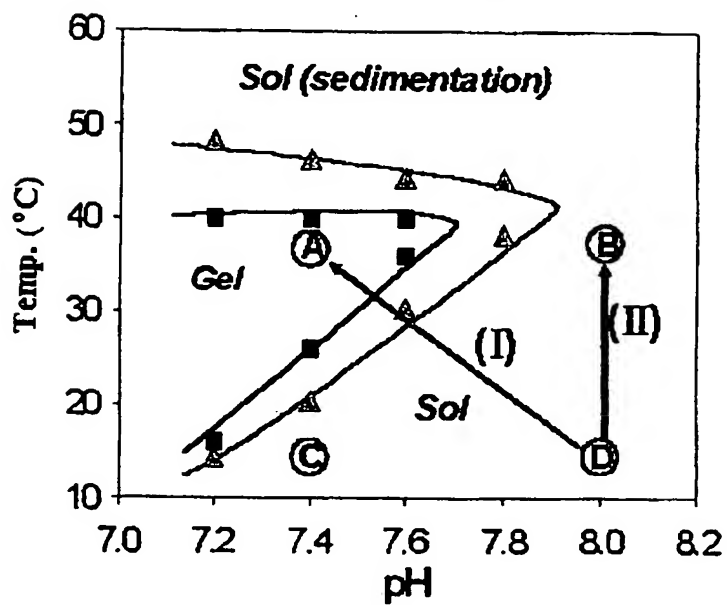
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FIG. 3

OSM-PCLA-PEG-PCLA-OSM
(OSM Mn = 1144)

■ : PEG/PCLA=1/1.85, CL/LA=2.44/1
▲ : PEG/PCLA=1/2.08, CL/LA=2.59/1

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FIG. 4

pH 7.4 ←——————→ pH 8.0

37°C

10°C

OSM-PCLA-PEG-PCLA-OSM

: non-ionized sulfamethazine oligomer at low pH

: ionized sulfamethazine oligomer at high pH

: hydrophobic PCLA at high temperature

: hydrophilic PCLA at low temperature

FIG. 5

Injection

Shaking

pH 7.4   pH 8.0

pH 7.4   pH 8.0

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FIG. 6

37 ℃
After 2 weeks

Adding buffer solution(pH=7.4)
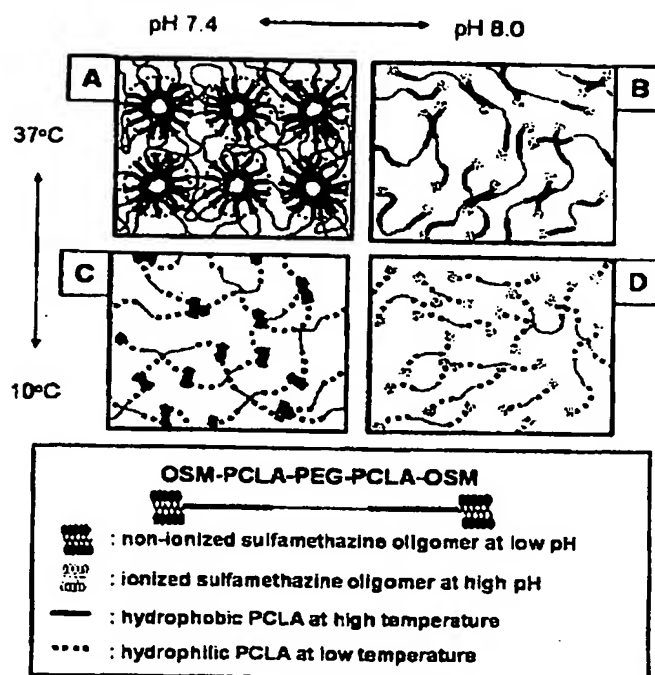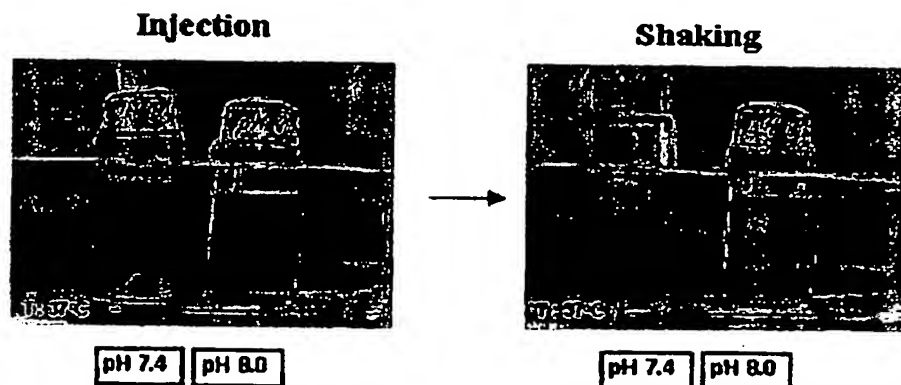
FIG. 7

OSM-PCLA-PEG-PCLA-OSM
(PEG/PCLA=1/2.1, OSM Mn=1144)

■ : PEG=1500   ◆ : PEG=1750   ▲ : PEG=2000

Sol (segregation)

Gel

Gel

Sol

Temperature(℃)

pH
(15wt% solution)

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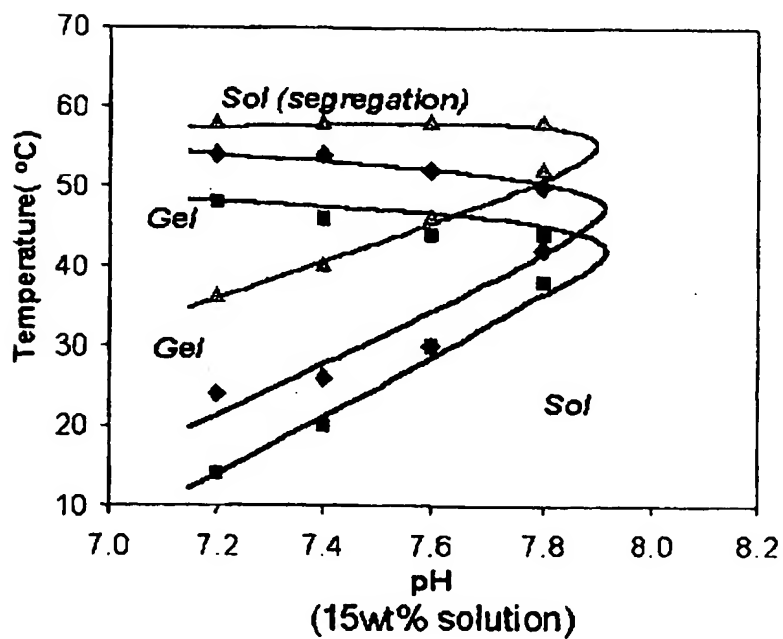
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FIG. 8

OSM-PCLA-PEG-PCLA-OSM
(PEG=1500, PEG/PCLA=1/2.08)

● : OSM (Mn=937)

▲ : OSM (Mn=1144)

(15wt% solution)

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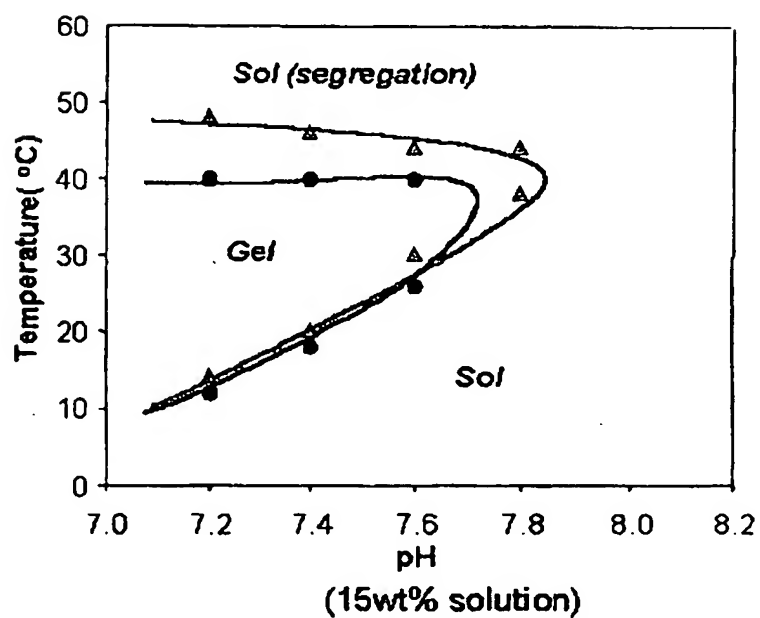
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FIG. 9

MPEG-PCLA-OSM
(MPEG=750, OSM=1144)

■ : MPEG/PCLA=1/1.86, CL/LA=2.67/1
△ : MPEG/PCLA=1/2.04, CL/LA=2.70/1

(25wt% solution)

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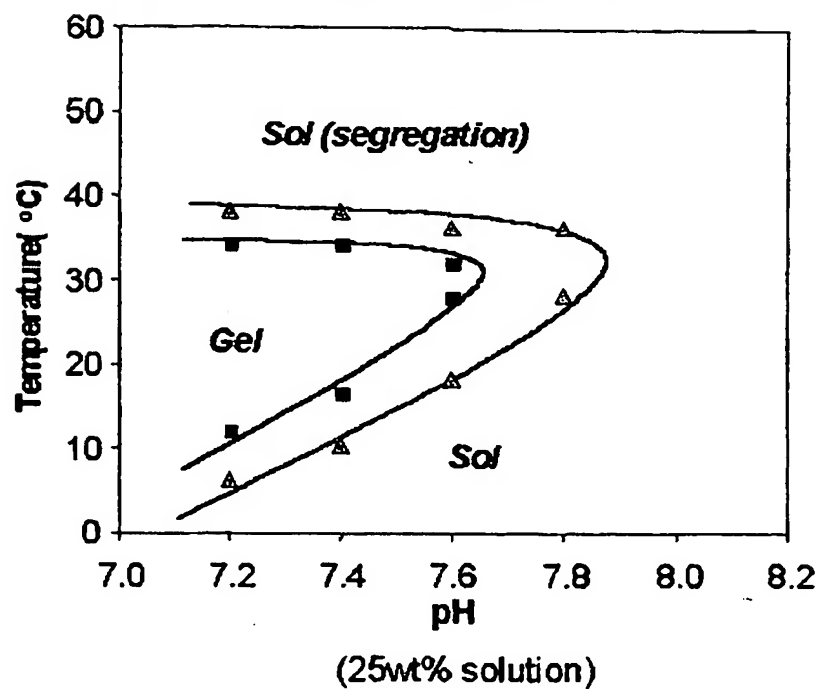
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FIG. 10

OSM-PCGA-PEG-PCGA-OSM
(PEG=1500, OSM=1144)

■ : PEG/PCGA=1/2.02, CL/GA=2.38/1

▲ : PEG/PCGA=1/2.23, CL/GA=2.39/1

(15wt% solution)